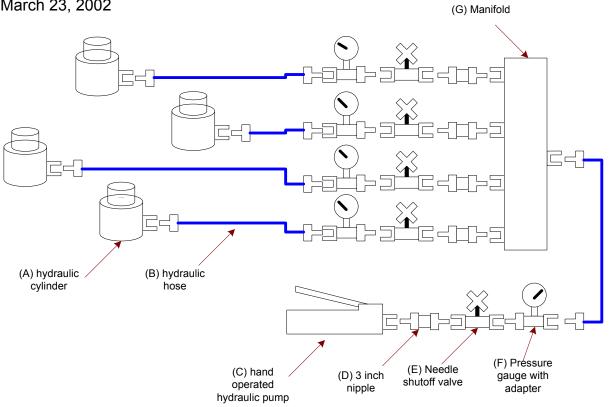
Rock Pallet and Dolly Hydraulic configuration

Ken Chow March 23, 2002



	Description	Qty	Catalog	Cat. Number	Inlet connection	Outlet connection	Features
(A)	Hydraulic cylinder	4	McMaster	2990T17	3/8 NPTF female		1.5" ram OD, 5.2 cu.in. oil capacity, 2.125" stroke
(B)	Hydraulic hose	5	McMaster	2916T5, -T8, -T9	3/8 NPT male	3/8 NPT male	Lengths TBD
(C)	Hand operated hydraulic jack	1	McMaster	2992T15		3/8 NPT female	10,000 max pressure, 45 cu.in. capacity
(D)	3 inch nipple	5	McMaster	2983T35	3/8 NPTF male	3/8 NPTF male	
(E)	Needle shutoff valve	5	McMaster	2983T41	3/8 NPTF female	3/8 NPTF female	
(F)	Pressure gauge with adapter	5	McMaster	2965T5 +2965T7	3/8 NPTF male	3/8 NPTF female	0-10000 psi range
(G)	Manifold	1	McMaster	2983T33	3/8 NPT female	3/8 NPT female	6 ports

Pressure:

12,000 lbs = 3000 lbs per cylinder 1.5 OD of ram = 1.767 sq. inch area per cylinder 1700 psi needed to achieve 12,000 lbs Oil:

5.2 cu. Inch per cylinder 20.8 cu. Inch plus oil for hose, manifold, etc.